THE NELSON COLUMN SCAFFOLDING.

The scaffolding is 170 feet in height, and 36 feet square at the base, and contains 150 loads of timber. It was first introduced into use by Grissell and Peto, in the erection of the Reform Club House, in Pall Mall, some three years since, and was found to possess so many advantages over the ordinary scaffolding made with poles, that it is not only used by Grissell and Peto at the New Houses of Parliament, and in all their other heavy contracts, where masonry is chiefly concerned, but is coming into general use by other large builders, as at the Royal Exchange, Sun Fire Office, and the new Club House in St. James's-street.

Its stability has recently been tested beyond all doubt at the Nelson Column both as to its resistance to wind at a great altitude, and in its strength and steadiness while hoisting heavy weights. One of the parts of the statue of Nelson weighed 12 tons, and the load, although eight hours upon the scaffolding, did not occasion the most trifling vibration to be observable.

One of the advantages of this mode of scaffolding is that the timber is all convertible for the building at which it may be used, as the scaffolding may be dispensed with as soon as the carcase is covered in, and it is generally used up in the internal carpentry of the building; the enormous waste in scaffold cords is also avoided, as well as the considerable expense of a number of masons' labourers, who are always necessarily in attendance upon a scaffolding of the ordinary kind during its use.

The machine which works upon the top, and by which all materials are hoisted, is called a traveller, and the facility by which the mason is enabled to set his stone-work is not of inconsiderable moment to the builder.

The simplicity and efficiency of this scaffold has been the theme of general comment. Many of our readers will remember the erection of the Duke of York's column, and the forest of poles which almost obscured it from view; the abundance of cords and ropes which were employed in it involving a large dead outlay for the stock, and a great loss in wear and tear. In this case, however, it has been far different; and as we find considerable interest has been excited in the minds of some of our readers to have the particulars of the timbers employed, and the mode of joining them, we have been at the pains to inspect the work minutely, and to append to what we had before prepared the following particulars:—

The principal structure of the scaffold may be described as a skeleton timber tower of upright posts and level plates, raised in different stories or stages. For the first, or ground story, however, there are four abutting squares, like the disposition of nave, chancel, and transepts around a cathedral tower or dome. These transept stories are shored up towards the centre, pressing inwards, and form in effect a great outspread platform or stage, wherefrom to shore or strut inwards again at the second range; or the whole may be likened perhaps still more aptly to a skeleton-framed pyramid. One principal feature of ingenuity, however, is the jutting-out limbs that, like a man's arms akimbo, obtain breadth and strength without a wider base than the original spread of his legs. The extended plates of the upper stories are shored up by struts raking outwards, by which a new sustaining point is gained for a platform, and also for an upper series of inward struts again. The posts and plates and a few of the first principal struts are whole timbers or Memel balk; the templates and remaining struts, or "braces," as the scaffold-master calls them, are of half-balk, with some inferior cross-braces of smaller scantling. On the ground, sunk and bedded carefully down, are timber-sills, or ground plates; into these are mortised, and housed or pocketed, the feet of the posts or struts; on the head of the posts, in like manner mortised, &c., are templates of half-balk, laid flat, and screw-bolted (*in effect* scarfed); upon the templates are the main plates or ledgers, running out to any required extension of length, so that, with the exception of the mortise-holes and halvings of the cross joints, and the piercing of the screw-bolts, the timbers are free from waste and wound, become seasoned by exposure, and are applicable with advantage to the carpentry of other permanent works.

To enumerate the timbers again, they are—

1. The ground sills or plates.
2. Upright posts,
3. Struts or braces, set raking.
4. Templates or head sills.
5. Principal plates or ledgers.
6. Inferior braces and stays.

The greatest spread at the base is about 150 feet.

It was our intention to have illustrated the above remarks by an engraving, but we have been disappointed in obtaining it sufficiently early for insertion.

COMPARATIVE PROPORTIONS OF THE PORTICOS OF ST. MARTIN-IN-THE-FIELDS AND ST. GEORGE, HANOVER-SQUARE, LONDON.

The splendid porticos of Roman Architecture executed in these churches have, at various times, excited considerable interest. An accurate examination of them would be an advantageous study for a young architect.

St. Martin's-in-the-Fields.

	feet	in.
Extent of portico from end of one plinth to that of the other	64	10
Intercolumniation from plinth to plinth	7	4½
Diameter of columns	3	4
Square of the plinth	4	8
Projection of portico from line of wall to front of plinth	24	11
Height of columns	33	4
Height of base with the plinth	1	9½

St. George, Hanover-square.

	feet	in.
Extent of portico from end of one plinth to that of the other	59	0
Intercolumniation from plinth to plinth	6	1
Centre ditto	8	8
Diameter of columns	3	2
Square of the plinth	4	4
Projection of portico from line of wall to front of plinth	16	7½
Height of columns	31	8
Height of base with the plinth	1	9½

The capital of St. Martin's has its abacus ornamented, and the centre volutes, or horns, are entwined similar to those of the temple of Jupiter Stator, at Rome. The base, as respects the contour of the mouldings, are the same as in Palladio's book of architecture. The cup of St. George's is plain Corinthian, and the base is Attic, or what is in general used for the Roman Ionic.

A PUZZLE.

TO THE EDITOR OF THE BUILDER.

SIR,—I want to know the reason why the operatives of this country evince so much apathy towards their general interests, for it is a notorious fact, that they do exhibit the most stoical indifference to the events which are daily occurring around them, for instance, an Act of Parliament passed which may either materially benefit or may seriously injure them, or a new work issuing from the press calculated to improve or damage their prospects, or if some new machine or method of working be brought into use which may have the same good or bad effects upon them, all these things are treated in the same way with perfect indifference, every one exclaiming what can *I* do, which is as much as to say I don't mean to do any thing, but leave it to somebody else to do it, and as this somebody else does not do it, it goes undone altogether. But this is not the case in other countries, France and more particularly America, for example, where if a master, an author, or any other person hits upon any thing which in some way or other benefits the class alluded to, his praise is sounded throughout the land, and, on the other hand, should any thing be done which may operate injuriously to the interests of the artisan, a stir is immediately made by the parties injured, and generally the resolutions are so energetically acted upon, that some alteration is made in their favour. We have an instance of the truth of the foregoing remarks in the case of your well-intentioned work, THE BUILDER, whose pages are, I venture to say, more open to the humble workman than those of any other work previously published, and might be made the vehicle for disseminating improved methods, &c. throughout the various building trades, and thus enable them to keep pace with the present competition and general improvements of the times. Yet, with some half dozen exceptions, but little use has been made of your pages by those who would most benefit by sending you their humble contributions, instead of which they grumble because the work is now assuming too high a character to be amusing to some of them; to illustrate this, I will just mention that an old acquaintance of mine observed to me the other day that he had seen my name in THE BUILDER upon more than one occasion, and was pleased to flatter me by approving of the subjects of my correspondence; also of the puzzles inserted in two or three of the numbers, and the plans of the skew arches pleased him very much, as well as several subjects of a similar kind, and he expressed his astonishment that there was not more of these sort of things inserted, instead of so much room being taken up with architectural drawings and the higher order of things generally; in fact, he wanted to see more of the shop, more working rules and details, and something like Peter Nicholson's rules and lines inserted now and then, or he should get out of patience with the editor. Well, said I, this is really too bad of you, for instead of blaming the editor, you and such as you should take blame to yourselves, for not rendering your assistance, capable as I know you to be, towards furnishing the editor with matter more congenial to your and many other mechanics' tastes; for instance, you are a professed stair-case hand, and as Peter Nicholson is only well understood by those who know something of geometry and lines generally, why do you not communicate something of a more plain and simple character relating to the construction of stairs, rails, &c., and thus contribute your share of knowledge towards rendering the work more satisfactory to some of you grumblers. My friend then expressed a doubt about his language, sketches, &c. being good enough, but I called his attention to your oftimes courted communications, assuring him that the editor put me in mind of a mother learning her child to walk, holding out her hands to give confidence, but using them only in case of a slip. Well, sir, I managed to much alter his opinion of the work, and I think I shall succeed in drawing him out, and to do this I purpose with your assistance, as he is fond of puzzles, to give him one, an answer to which from him and others of the same kidney may afterwards induce them to try their hands upon better stuff, the puzzle I intend to give has more than once stood my friend, and is useful as well as amusing; it is as follows:—

Suppose a joiner to be making a door, with panels an inch or more in thickness, and his panel stuff is too narrow, and he has no more than just length enough, and no more stuff, I wish to know how he will use his panel stuff, so as to make it wide enough, and some to come off. We will also suppose that he can in another case spare a little in length of each panel, what method can he in that case adopt to make it wide enough?

With my best wishes for the success of THE BUILDER, I remain, yours, Sir, respectfully,

CHARLES NEWNHAM.

Walcot-square, November 28, 1843.

METROPOLITAN IMPROVEMENTS.—We understand that it is intended to apply to Parliament, at the commencement of next session, for an Act to empower the Commissioners of Woods and Forests, Land Revenues, Works, and Buildings, to widen and improve the carriage-road on the south side of Piccadilly, lying between Bolton-street on the east, and Park-lane on the west, and to take and use for that purpose, by Her Majesty's permission, so much of the Green-park as will make Piccadilly, from Bolton-street to Park-lane, of a uniform width of 70 feet or thereabouts; and it is also intended by the said Act of Parliament to empower the Commissioners to take all lands, and to pull down all houses they may require for that purpose. Such an improvement of that portion of so great a thoroughfare as Piccadilly has long been a desideratum, and will, it is hoped, be carried into effect with the least possible delay.

MR. ROBINSON'S (LATE MESSRS. BRAMAH'S) FOUNDRY.—We are happy to learn, that although the loss to the workmen employed on this establishment may be regarded as a serious one, considering their means, the carpenters having principally suffered from the destruction of their tools by the fire, the aggravation of that loss, through suspension of employment, will be avoided; temporary sheds are being set up for the continuance of the business, and the rebuilding will be carried on with activity. It would indeed have been a doubly serious affair, with the winter before them, for 120 men, or the larger number of those employed on this establishment, to have been thrown out of work.

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